

REMARKS

Support for the amendments to the claims find support in the specification at the following locations. For Claims 1 and 32, support for visible light transmittance and the range for this transmittance is found at page 6 lines 10-11 and 18-23. For the amendment to Claim 6, only the claim dependency was changed. For Claim 16, the support is from the same location in the specification as that for claims 29-31. For the new claims support is found at the following locations in the specification:

<u>Claim</u>	<u>Support Location</u>
39	Page 11, lines 10-12 and 19-22
40	Page 6, lines 12-13.
41	page 14, lines 21-35, and page 15, lines 1-12, and page 8, lines 18-20
42	page 8, lines 13-26
43	Table II page 17
44	Page 13, line 31, to page 14, line 20
45	page 11, lines 10-22
46	Page 11, lines 17-27

CLAIM REJECTION UNDER 35 U.S.C. 112

Previously submitted claim 6 was objected to for lack of antecedent basis for the terms "metal alloys". Following the Examiner's helpful comment, the dependency of Claim 6 has been amended from claim 2 to claim 4 to provide antecedent basis. With this amendment, it is respectfully submitted that claim 6 complies with 35 U.S.C. 112.

CLAIM REJECTION UNDER 35 U.S.C. 102

Previously submitted claims 1-6, 8, 11, 13-24, 26-27, 31-35 and 38 were rejected as anticipated from U.S. Patent 5,902,505 (Finley), hereinafter "Finley". It is respectfully submitted that with the amendments to claims 1, 16 and 32 that

these independent claims and dependent claims therefrom are novel and unobvious over the Finley reference. Claims 1 and 32 are amended to show that the visible light transmittance is in the range of about 50 to about 70 while having the claimed shading coefficient. The Finley reference teaches a higher level of transmittance of 70 percent and greater, while silent about the shading coefficient. Regarding Claim 16 and claims dependent therefrom, claim 16 is amended to include previously submitted claims 29-31. Previously submitted claims 29-30 were not rejected under 35 U.S.C.102 from the Finley reference. Therefore it is respectfully submitted that claims 1-6, 8, 11, 13-24, 26-27, 31-35 and 38 are novel and unobvious over the Finley reference.

CLAIM REJECTION UNDER 35 U.S.C. 103

A) Previously submitted claims 9-10, 12, 29-30 and 37 were rejected as obvious from U.S. Patent 5,902,505 ("Finley").

It is respectfully submitted that claims 9-10 and 12 are dependent from now amended claim 1, and claim 37 is depended from now amended claim 32. For the reasons above the Finley reference does not teach or suggest the lower range of luminous transmittance while having the claimed shading coefficient. Therefore, it is submitted that claims 9-10, 12 and 37 are unobvious and patentable over the Finley reference. Claims 29-30 are cancelled and added to amended claim 16. It is respectfully submitted that amended claim 16 and claims dependent therefrom are unobvious over the Finley reference. The Finley reference does not teach the claimed ranges of the layers to achieve the claimed shading coefficient of less than about 0.33 and also an external reflectance of less than about 30%.

B) Previously submitted claims 7, 25, and 36 were rejected as obvious from the Finley reference and U.S. Patent 5,821,001 (Arbab) hereinafter "Arbab".

It is respectfully submitted that since claims 7, 25 and 36 are dependent from now amended claims 1, 16 and 32, respectively. Therefore claims 7 and 36 are unobvious over the combined references for the same reasons as stated above for the primary Finley reference.

C) Previously submitted claims 15 and 28 were rejected as obvious from the Finley reference and U.S. Patent 5,776,603 (Zagdoun).

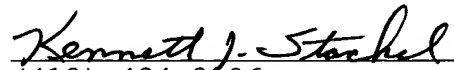
It is respectfully submitted that since claims 15 and 28 are dependent from now amended claims 1, and 16, respectively, that claims 15 and 28 are unobvious over the combined references for the same reasons as stated above for the primary Finley reference.

Accordingly in view of the above amendments, explanations and remarks, reconsideration and allowance of the pending claims are respectfully submitted.

Attached hereto is a marked-up version of the amendments to the claims made by the instant amendment. The attached page is captioned **"VERSION WITH MARKINGS TO SHOW CHANGES MADE"**.

Respectfully submitted,

KENNETH J. STACHEL
Registration No. 27,722
Attorney of Record


(412) 434-3186

Pittsburgh, Pennsylvania
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Cancel claims 29-31 without prejudice.

Please amend claim 1, 6, 16 and 32 as follows:

1. (Amended) A solar control article, comprising:
a substrate having a surface;
at least one antireflective layer deposited over the substrate surface; and
at least one infrared reflective film deposited over the at least one antireflective layer,
such that the coated article has a visible light transmittance in the range of about 50 to about 70 [greater than about 55]%, a shading coefficient less than about 0.33 and a reflectance less than about 30%.

6. (Amended) The article as claimed in claim [2]4, wherein the metal alloys are selected from the group consisting of zinc stannate, tin alloys, fluorine doped tin, antimony doped tin, and indium-tin alloys.

16. (Amended) A solar control coated article, comprising:
a substrate having a surface;
a first antireflective layer deposited over a substrate surface, wherein the first antireflective layer has a thickness of about 272 to about 332 angstroms;
a first infrared reflective layer deposited over the first antireflective layer, wherein the first infrared reflective layer has a thickness of about 86 to about 269 angstroms;
a first primer layer deposited over the first infrared reflective layer, wherein the primer layer has a thickness of about 15 to about 30 angstroms;

a second antireflective layer deposited over the first primer layer, wherein the second antireflective layer has a thickness of about 198 to about 836 angstroms;

a second infrared reflective layer deposited over the second antireflective layer, wherein the second infrared reflective layer has a thickness of about 159 to about 257 angstroms;

a second primer film deposited over the second infrared reflective layer, wherein the primer layer has a thickness of about 15 to about 30 angstroms; and

a third antireflective layer deposited over the second primer layer, wherein the third antireflective layer has a thickness of about 60 to about 273 angstroms, such that the coated article has a transmission of greater than about 55%, a shading coefficient of less than about 0.33 and an external reflectance of less than about 30%.

32. (Amended) A method of making a solar control article, comprising the steps of:

providing a substrate having a surface;

depositing at least one antireflective layer over the substrate surface; and

depositing at least one infrared reflective layer over the at least one antireflective layer such that the coated article has a visible light transmittance in the range of about 50 to about 70 [greater than about 55]%, a shading coefficient less than about 0.33 and a reflectance less than about 30%.

Please add claims 39-46 as indicated below.

39. The article as claimed in claim 4, wherein the metal-oxide film is zinc stannate film.

40. The article as claimed in claim 15 wherein the insulated glass unit has an reflectance selected from luminous exterior or interior reflectance of less than about 30%.

41. The article as claimed in Claim 15, wherein the insulated glass unit has a pair of spaced-apart first and second at least semitransparent substrates separated by one or more spacers wherein the substrates and spacers are sealed to form an interior gap which may be filled with a selected atmosphere, selected from argon or air and wherein at least one of the substrates has on the surface facing the gap at least one antireflective layer deposited over the substrate surface and at least one infrared reflective film deposited over the at least one antireflective layer.

42. The article as claimed in Claim 15, wherein the insulated glass unit has i) a pair of spaced-apart first and second at least semitransparent substrates separated by one or more spacers wherein the substrates and spacers are sealed to form an interior gap which may be filled with a selected atmosphere, selected from argon or air; and ii) one or more polymeric films placed in the gap wherein the polymeric film has at least one antireflective layer over which is deposited at least one infrared reflective film.

43. The article as claimed in Claim 15 having a U value in the range of 0.24 to 0.30.

44. The article as claimed in claim 1 wherein the coated article has a temporary protective film.

45. The article as claimed in claim 7, wherein the plurality of antireflective films comprises a zinc stannate film and a zinc oxide film.

46. The article as claimed in claim 45, wherein the zinc oxide film is deposited over the zinc stannate film wherein the zinc stannate film is sputtered from a zinc-tin cathode and the zinc oxide film is deposited from a zinc cathode having 10 wt% or less of tin and the zinc oxide film has a thickness from 20 to 70 Angstroms.